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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/688,961	10/17/2000	ALAIN BETHUNE	107615	1437

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EXAMINER	
LORENGO, JERRY A	

ART UNIT	PAPER NUMBER
1734	7

DATE MAILED: 10/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-7

Office Action Summary	Application No.	Applicant(s)	
	09/688,961	BETHUNE, ALAIN	
	Examiner	Art Unit	
	Jerry A. Lorengo	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *1-25* is/are allowed.

6)☒ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

(1)

Claim Rejections - 35 USC § 102

The rejection of claims 1, 2, 4-9, 13, 14, 15, 19 and 20 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,294,641 to Reed et al., as generally set forth in the office action mailed March 14, 2002, stands.

(2)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 11, 21 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,294,641 to Reed et al.

Although Reed et al., as set forth in section (1), above, discloses that the transfer layer is UV cured after the support sheet is removed, he does not specifically disclose, as per applicant claim 11, that the transfer layer is exposed to UV radiation while its temperature is still close to the maximum temperature thereof during transfer and wherein the temperature difference is less that 30% of the maximum temperature.

It would have been obvious to one of ordinary skill in the art at the time of invention to initiate UV curing as soon as possible after the heat transfer step of Reed et al. motivated by the

fact the skilled artisan, given the disclosure by Reed et al. that cross-linking is initiated by the heat utilized in the transfer step, would have appreciated that immediate UV exposure would be required in order to maintain curing inertia (column 6, lines 5-12). Furthermore, the claimed temperature differential represented by the transfer layer during transfer and at the point of UV exposure would have been the result of routine experimentation by one of ordinary skill in the art taking into consideration the specific materials used, type of photo-initiators used, and the method of heating used during transfer.

Although they disclose that the transfer layer includes photo-initiators at a concentration of 2.47 wt%, they do not specifically disclose, as per applicant claim 21, that the photo-initiators are present at a concentration by weight of about 0.5%.

It would have been obvious to one of ordinary skill in the art at the time of invention to utilize any effective amount of photo-initiator in compounding the transfer layer of Reed et al. motivated by the fact that the claimed amount of photo-initiator would have been the result of routine experimentation by one of ordinary skill in the art taking into consideration the polymers utilized and the method and means of UV exposure, etc.

Regarding applicant claim 23, although Reed et al. do not specifically disclose that the varnish and decorative layers remain in an external surface of the article during transfer or that the decorative layer remains coherent during transfer, it would have been obvious to one of ordinary skill in the art at the time of invention that the varnish and decorative layers of Reed et al. would have remained upon an external surface of the article ***during the transfer*** motivated by the fact that the skilled artisan would have appreciated that even though Reed et al. disclose that the articles comprises a textile or other material, the varnish and decorative layers would have remained on an exterior surface of the article sometime ***during the transfer*** even if some of the materials were to permeate into the surface of the article ***after*** the transfer step was completed.

Furthermore, although Reed et al. are silent as to the "coherency" of the decorative layer during transfer, as set forth in applicant claim 24, it would have been obvious to one of ordinary skill in the art at the time of invention that the decorative layer of Reed et al., even though molten at some time during the transfer step would remain in a definitively coherent state, i.e., having the quality of cohering, motivated by the fact that the skilled artisan would have

appreciated that the term "coherent state" does necessarily exclude a molten or thermally softened decorative layer of Reed et al.

Finally, although Reed et al. disclose that the article to be thermally decorated is preferably a textile, it would have been obvious to one of ordinary skill in the art at the time of invention that the method of Reed et al. would have been functional upon other materials such as plastic, as set forth in applicant claim 25, motivated by the fact that Reed et al. discloses that other materials, other than textiles, are suitable as substrates (column 1, lines 9-11).

(3)

The rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,294,641 to Reed et al. in view of U.S. Patent No. 5,581,978 to Hekal et al., as generally set forth in the office action mailed March 14, 2002, stands.

(4)

The rejection of claim 22 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,294,641 to Reed et al. in view of U.S. Patent No.4,133,723 to Howard, as generally set forth in the office action mailed March 14, 2002, stands.

(5)

The rejection of claims 10, 12, and 16-18 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,294,641 to Reed et al. in view of U.S. Patent No. 6,059,914 to Suss and U.S. Patent No. 4,215,170 to Vilaprinyo Oliva, as generally set forth in the office action mailed March 14, 2002, stands.

(6)

Response to Amendments and Arguments

The applicant's amendments and arguments filed August 12, 2002 are acknowledged. In response thereto, a new grounds of rejection, as set forth in section (2), has been established. Applicant's arguments filed August 12, 2002 have been fully considered but they are not persuasive.

The applicant's main argument is that while Reed et al. disclose that the varnish layer is exposed to UV radiation to cross-link it, he teaches away from UV exposure to "harden" the varnish. Although the examiner agrees that Reed et al. is not concerned with forming a "hard" varnish layer by UV curing, the examiner respectfully submits that the exposure of the varnish

layer of Reed et al. to UV radiation would function to "harden" the varnish to some degree motivated by the fact that Reed et al. discloses that UV exposure renders to varnish "non-softenable by heat." (column 14, lines 53-55). Therefore, the disclosure of Reed et al. meets the hardening limitation of claim 14.

The applicant also argues that the newly added claim 24 differentiates the instant invention over that of Reed et al. because reed et al. do not specifically disclose that the decoration layer remains coherent during the transfer step. As set forth in section (2), above, it would have been obvious to one of ordinary skill in the art at the time of invention that the decorative layer of Reed et al., even though molten at some time during the transfer step would remain in a definitively coherent state, i.e., having the quality of cohering, motivated by the fact that the skilled artisan would have appreciated that the term "coherent state" does necessarily exclude a molten or thermally softened decorative layer of Reed et al. The applicant is further directed to column 9, lines 39-58 of Reed et al. Therefore, the examiner submits that claim 24 would be obviated by the disclosure of Reed et al. because, if the decorative layer were to disperse during transfer and not retain some degree of coherency during transfer, the transferred decoration, after transfer would result in a smeared and blurred decoration of the article.

The applicant also addresses the rejections set forth in sections (3) to (5), above, by reiterating that since the references fail to remedy the alleged failure of Reed et al. to disclose that the UV radiation is capable of causing the varnish layer to harden. The examiner respectfully submits, however, that since it has been shown that the Reed et al. does disclose that the exposure of the varnish layer to UV radiation would function to "harden" the varnish to some degree, the rejections repeated in sections (3) to (5), above, stand.

(7)

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

(8)

Applicant is encouraged to **FAX After Final Amendments** (37 CFR 1.116) to expedite delivery to the Examiner. The Group 1734 Facsimile number is **(703) 872-9311**. A duplicate mailed copy of the facsimile transmission is **not required** and will only serve to delay the processing of your application.

If the applicant prefers to mail in After Final correspondence it is highly recommended that such be mailed to **BOX AF** which will also facilitate processing from the mailroom and within Group 1700.

(9)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (703) 306-9172. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

J.A. Lorengo
Primary Examiner
AU 1734
October 21, 2002